

## CRITICAL THINKING RUBRIC

### LEARNING OUTCOME: Demonstrates critical thinking

DIMENSION	WHAT IS BEING ASSESSED	Not Yet Proficient	Proficient	Exceeds Proficiency
Evidence	Assesses quality of information that may be integrated into an argument	Information is incomplete and/or not reputable.	Information is credible and appropriate to support development of a coherent analysis.	High quality, credible information directly related to topic is selected in order to develop a comprehensive analysis.
Integrate	Integrates insight and or reasoning with existing understanding to reach informed conclusions and/or understanding	Synthesis is incomplete, inappropriate, and/or lacking sufficient information for purpose.	Synthesizes ideas and information appropriate for purpose.	Synthesizes ideas and information appropriate for purpose and clearly articulates either the thought process leading to the synthesis of or relationship between ideas and information
Evaluate	Evaluates information, ideas, and activities according to established principles and guidelines	Conclusion is inconsistently tied to information; related outcomes (consequences and implications), are incorrect and/or insufficiently identified.	Conclusion and/or opinion is logically tied to an appropriate range of information and insight. Related Outcomes (consequences and implications) are identified clearly.	Conclusions, opinions, and related outcomes (consequences and implications) are logical and reflect informed evaluation and ability to utilize evidence, perspective and/or insight.

## SCIENTIFIC INQUIRY RUBRIC

**LEARNING OUTCOME: Demonstrates use of scientific processes to investigate and report knowledge about natural or social phenomena**

<b>DIMENSION</b>	<b>WHAT IS BEING ASSESSED</b>	<b>Not Yet Proficient</b>	<b>Proficient</b>	<b>Exceeds Proficiency</b>
<b>Research Question</b>	Develops, distinguishes or identifies a manageable and appropriate research question that is tied to testable hypotheses	Identifies a topic that is unmanageable for the purposes of scientific inquiry; or hypothesis and research questions are not testable or not logically connected to identified topic or problem.	Identifies a manageable topic suitable for the purposes of scientific inquiry. States a testable hypothesis or research question logically connected to identified topic or problem.	Identifies a creative, focused and manageable topic. States a testable hypothesis or research question capable of generating new or replicating existing knowledge in a given field.
<b>Methodology/Data Collection</b>	Selects and/or develops appropriate scientific methodologies	Methodology results in the collection of unreliable or irrelevant data.	Methodology results in the collection of reliable and relevant data.	Methodology results in the collection of reliable and relevant data with exceptional precision or novel approaches.
<b>Analysis, Results and Presentation</b>	Analyzes and presents appropriately collected data	Data is presented, but does not reveal clear patterns, differences or similarities.	Evaluation and presentation of data is adequate and connects to the hypotheses and research questions; Evidence reveals some patterns, differences or similarities.	Evaluation and presentation of data reveals insightful patterns, differences and similarities related to hypotheses and research questions including an explanation of error.
<b>Discussion/Conclusions</b>	Links conclusions to evidence in the form of limitations and implications	States an ambiguous conclusion not clearly supported by evidence.	States a conclusion related to the evidence produced from the inquiry. Discusses results related to the hypotheses.	States a conclusion that is a logical extrapolation from the evidence produced in the inquiry. Discusses relevant and supported limitations and implications.